

WHAT IS CLAIMED:

1. A method, comprising the steps of:

receiving a frame of data having a predetermined number of time slots;

receiving a plurality of data symbols in each respective time slot; and

receiving a primary, a secondary and a tertiary synchronization code in each said

predetermined number of time slots.

2. A method as in claim 1, wherein the secondary and the tertiary synchronization codes

identify a subset of codes.

3. A method as in claim 2, wherein the secondary and tertiary synchronization codes are formed from a predetermined order of synchronization code elements, the predetermined order corresponding to the subset of codes.

4. A method as in claim 1, wherein the secondary and tertiary synchronization codes are formed from a predetermined order of common synchronization code elements.

5. A method as in claim 1, wherein a mobile receiver identifies a first time slot of the frame by the tertiary synchronization code.

6. A method as in claim 1, further comprising the steps of:

matching the tertiary synchronization code with a predetermined code;

producing a match signal in response to the step of matching;

comparing the match signal to a threshold signal;

identifying a first time slot of the frame by the tertiary synchronization code in response to a first state of the match signal; and

identifying the first time slot of the frame by the secondary synchronization code in response to a second state of the match signal that is different from the first state.

7. A method, comprising the steps of:

receiving a plurality of frames of data, each frame having a predetermined number of time slots;

receiving a primary synchronization code in each said predetermined number of time slots;
receiving a secondary synchronization code in each said predetermined number of time slots;

receiving a tertiary synchronization code in each said predetermined number of time slots, wherein at least two of the plurality of frames comprise different tertiary synchronization codes.

8. A method as in claim 7, wherein the secondary and the tertiary synchronization codes identify a subset of codes.

9. A method as in claim 8, wherein the secondary and tertiary synchronization codes are formed from a predetermined order of synchronization code elements, the predetermined order corresponding to the subset of codes.

10. A method as in claim 7, wherein the secondary and tertiary synchronization codes are formed from a predetermined order of common synchronization code elements.

11. A method as in claim 7, wherein a mobile receiver identifies a first time slot of the frame by the tertiary synchronization code.

12. A method as in claim 7, further comprising the steps of:

matching the tertiary synchronization code with a predetermined code;

producing a match signal in response to the step of matching;

comparing the match signal to a threshold signal;

identifying a first time slot of the frame by the tertiary synchronization code in response to a first state of the match signal; and

identifying the first time slot of the frame by the secondary synchronization code in response to a second state of the match signal that is different from the first state.

13. A method, comprising the steps of:

5 transmitting a frame of data having a predetermined number of time slots;
transmitting a plurality of data symbols in each respective time slot; and
transmitting a primary, a secondary and a tertiary synchronization code in each said
predetermined number of time slots.

10 14. A method as in claim 13, wherein the secondary and the tertiary synchronization codes
identify a subset of codes.

15 15. A method as in claim 14, wherein the secondary and tertiary synchronization codes are
formed from a predetermined order of synchronization code elements, the predetermined order
corresponding to the subset of codes.

16. A method as in claim 13, wherein the secondary and tertiary synchronization codes are
formed from a predetermined order of common synchronization code elements.

20 17. A method as in claim 13, wherein the tertiary synchronization code order corresponds to an
order of time slots in the frame.

18. A method as in claim 13, further comprising the steps of:

25 transmitting the secondary and tertiary synchronization codes when a number of long code
groups exceeds a predetermined number; and

transmitting the secondary synchronization code and not the tertiary synchronization code in
response when the number of long code groups is less than or equal to the predetermined number.

19. A method, comprising the steps of:

transmitting a plurality of frames of data, each frame having a predetermined number of time slots;

transmitting a primary synchronization code in each said predetermined number of time slots;

5 transmitting a secondary synchronization code in each said predetermined number of time slots;

transmitting a tertiary synchronization code in each said predetermined number of time slots, wherein at least two of the plurality of frames comprise different tertiary synchronization codes.

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20. A method as in claim 19, wherein the secondary and the tertiary synchronization codes identify a subset of codes.

15 21. A method as in claim 20, wherein the secondary and tertiary synchronization codes are formed from a predetermined order of synchronization code elements, the predetermined order corresponding to the subset of codes.

22. A method as in claim 19, wherein the secondary and tertiary synchronization codes are formed from a predetermined order of common synchronization code elements.

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23. A method as in claim 19, wherein the tertiary synchronization code order corresponds to an order of time slots in the frame.

24. A method as in claim 19, further comprising the steps of:

25 transmitting the secondary and tertiary synchronization codes when a number of long code groups exceeds a predetermined number; and

transmitting the secondary synchronization code and not the tertiary synchronization code in response when the number of long code groups is less than or equal to the predetermined number.